

REMARKS

Claims 1, 2, 4-7, 9-12, 14, 15, 17-20, 22-25, and 27-57 were pending as of the action of May 18, 2010. Claims 1, 14, 27, 32, 42, and 47 are in independent form.

Claims 1-2, 4-6, 9-12, 14-15, 17-19, 22-25, 27-36, and 38-57 are being amended. Claims 58 and 59 are new. No new matter has been added by the amendments. The amendments are made to facilitate clear understanding of the terms used in the claims. The scope of the claims has not been narrowed.

Reconsideration of the action is respectfully requested in light of the foregoing amendments and the following remarks.

Section 103 Rejections

Claims 1, 2, 10, 11, 14, 15, 23, 24, 32, 33, 39, 40, 52, 54, and 56 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Moldovan *et al.*, "Using WordNet and Lexical Operators to Improve Internet Searches," IEEE INTERNET COMPUTING (2000) ("Moldovan") in view of Miller, "WordNet: A Lexical Database for English," COMMUNICATIONS OF THE ACM (11/95) ("Miller"). The applicant respectfully traverses the rejections.

Claim 1

Amended claim 1 is directed to a method that includes four stages of determining a meaning of a knowledge item. In a first stage, a computer system determines one or more "document term meanings" of "document-based information" (e.g., "one or more documents related to the knowledge item"). The computer system determines the one or more "document term meanings" of the document-based information based on meanings of terms in the document-based information.

In a second stage, the computer system determines multiple “knowledge item term meanings” for the knowledge item.

In a third stage, the computer system determines a “strength of relationship” between meanings in the two sets of meanings: the “document term meanings” of the document-based information and the “knowledge item term meanings” of the knowledge item. The system uses the strength to measure a “selection probability” of each of the “knowledge item term meanings.”

In a fourth stage, the computer system designates one or more “knowledge item term meanings” as the meaning of the knowledge item.

The applicant respectfully submits that the relied upon portions of Moldovan and Miller, considered alone or in combination, fail to disclose or suggest the features of amended claim 1.

For example, amended claim 1 recites, in part, selecting one or more meanings for terms in the document from meanings associated with the terms, and then determining one or more document term meanings of the document from the one or more meanings for the terms in the document. These features relate to the first stage of determining the meaning of the knowledge item as described above. The applicant respectfully submits that the relied upon portions of Moldovan and Miller fail to disclose or suggest these features.

The relied upon portions of Moldovan merely disclose that a word W_2 having m senses can appear in m similarity lists. *See* Moldovan, p. 35, col. 2. Making a word appear in the “similarity lists” is different from “determining one or more document term meanings of the document from the one or more meanings for the terms in the document” as recited in claim 1, at least because the relied upon portions of Moldovan fail to disclose or suggest using the “senses” or “similarity lists” to determine “one or more document term meanings of the document.”

In addition, amended claim 1 recites, in part, determining a strength of relationship between each knowledge item term meaning and each document term meaning of the document-based information, and determining a respective selection probability for each knowledge item term meaning from the strengths. These features relate to the third stage of determining a meaning of a knowledge item as described above. The applicant respectfully submits that the relied upon portions of Moldovan and Miller fail to disclose or suggest these features.

The above-cited features of claim 1 relate at least two sets of meanings: the “knowledge item term meanings” and the “document term meanings.” In contrast, the relied upon portions of Moldovan disclose, “Using such a query, we get the number of hits for each sense *i* of W2, and this provides a ranking of the *m* senses of W2 as they relate with W1.” Moldovan, p. 36, col. 1, emphasis added. The applicant respectfully submits that the relied upon portions of Moldovan fail to disclose or suggest the feature determining a strength of relationship between each knowledge item term meaning of the knowledge item and each document term meaning of the document-based information as recited in claim 1, at least because only one set of senses (the *m* senses of W2) is disclosed in Moldovan.

The examiner does not allege that Miller discloses the above-cited features of claim 1. Accordingly, the applicant respectfully submits that Miller does not disclose or suggest these features.

For at least the foregoing reasons, the applicant respectfully submits that the relied upon portions of Moldovan and Miller, standing alone or in combination, fail to establish a *prima facie* case of obviousness with respect to amended claim 1. Accordingly, the applicant respectfully submits that claim 1 and its dependent claims are in condition for allowance.

Claims 14 and 32

Amended claims 14 and 32 recite features that correspond to the features of claim 1. For at least the same reasons as set forth above with respect to claim 1, the applicant respectfully submits that claims 14 and 32 and their respective dependent claims are in condition for allowance.

Claims 4, 17, and 34 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Moldovan and Miller and in further view of Knoblock, "Trends & Controversies: Searching the World Wide Web," IEEE EXPERT 12(1) (1997) ("Knoblock"). The applicant respectfully traverses the rejections.

Claim 4 depends from claim 1. Claim 17 depends from claim 14. Claim 34 depends from claim 32. The applicant respectfully submits that the relied upon portions of Knoblock fail to cure the defects of Moldovan and Miller as set forth above with respect to claims 1, 14, and 32. For at least these reasons, the applicant respectfully submits that claims 4, 17, and 34 are in condition for allowance.

Claims 5-7, 18-20, and 35-37 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Moldovan, Miller, and Knoblock and in further view of McCandless, "Web Advertising," IEEE INTELLIGENT SYSTEMS 13(3) (1998) ("McCandless"). The applicant respectfully traverses the rejections.

Claims 5-7 depend from claim 1. Claims 18-20 depend from claim 14. Claims 35-37 depend from claim 32. The applicant respectfully submits that the relied upon portions of Knoblock and McCandless fail to cure the defects of defects of Moldovan and Miller as set forth above with respect to claims 1, 14, and 32. For at least these reasons, the applicant respectfully submits that claims 5-7, 18-20, and 35-37 are in condition for allowance.

Claims 12, 25, and 41 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Moldovan and Miller and in further view of U.S. Patent No. 5,867,799 issued to Lang ("Lang"). The applicant respectfully traverses the rejections.

Claim 12 depends from claim 1. Claim 25 depends from claim 14. Claim 41 depends from 32. The applicant respectfully submits that the relied upon portions of Lang fail to cure the defects of Moldovan and Miller as set forth above with respect to claims 1, 14, and 32. Accordingly, the applicant respectfully submits that claims 12, 25, and 41 are in condition for allowance.

Claims 9, 22, and 38 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Moldovan and Miller and in further view of U.S. Patent Publication No. 2002/0161608 A1 to Loveland ("Loveland"). The applicant respectfully traverses the rejections.

Claim 9 depends from claim 1. Claim 22 depends from claim 14. Claim 38 depends from 32. The applicant respectfully submits that the relied upon portions of Lang fail to cure the defects of Moldovan and Miller as set forth above with respect to claims 1, 14, and 32. For at least these reasons, the applicant respectfully submits that claims 9, 22, and 38 are in condition for allowance.

Claims 27, 31, 42, 46, 47, 51, 53, 55, and 57 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Moldovan, Miller, and Loveland as applied to claims 9, 22, and 38 above and in further view of McCandless. The applicant respectfully traverses the rejection.

Claim 27

Amended claim 27 recites selecting one or more meanings for terms in the document from meanings associated with the terms, and then determining one or more document term meanings of the document from the one or more meanings for terms in the document.

For at least the same reasons as set forth above with respect to claim 1, the applicant respectfully submits that the relied upon portions of Moldovan and Miller, standing alone or in combination, fail to disclose or suggest these features.

The examiner does not allege that Loveland or McCandless discloses these features. Accordingly, the applicant further submits that the relied upon portions of Loveland and McCandless fail to cure the defects of Moldovan and Miller.

In addition, amended claim 27 recites determining a strength of relationship between each candidate keyword meaning and each document term meaning of the document-based information, and determining a respective selection probability for each candidate keyword meaning from the strengths. The applicant respectfully submits that the relied upon portions of Moldovan, Miller, Loveland, and McCandless fail to disclose or suggest these features.

The above-cited features of claim 27 relate at least two sets of meanings: the “candidate keyword meanings” and the “document term meanings.” In contrast, the relied upon portions of Moldovan disclose, “Using such a query, we get the number of hits for each sense i of $W2$, and this provides a ranking of the m senses of $W2$ as they relate with $W1$.” Moldovan, p. 36, col. 1, emphasis added. The applicant respectfully submits that the relied upon portions of Moldovan fail to disclose or suggest the feature determining a strength of relationship between each candidate keyword meaning and each document term meaning of the document-based information as recited in claim 1, at least because only one set of senses (the m senses of $W2$) is disclosed in Moldovan.

The examiner does not allege that Miller, Loveland, or McCandless teaches the above-cited features of claim 27. Accordingly, the applicant respectfully submits that Miller, Loveland, and McCandless, standing alone or in combination, do not disclose or suggest these features.

For at least the foregoing reasons, the applicant respectfully submits that the relied upon portions of Moldovan, Miller, Loveland, and McCandless, standing alone or in combination, fail to establish a *prima facie* case of obviousness with respect to amended claim 27. Accordingly, the applicant respectfully submits that claim 27 and its dependent claims are in condition for allowance.

Claims 42 and 47

Amended claims 42 and 47 recite features that correspond to the features of claim 27. For at least the same reasons as set forth above with respect to claim 27, the applicant respectfully submits that claims 42 and 47 and their respective dependent claims are in condition for allowance.

Claims 28-30, 43-45, and 48-50

Claims 28-30, 43-45, and 48-50 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Moldovan, Miller, and Loveland as applied to claims 27, 31, 42, 46, 47, 51, 53, 55, and 57 above and in further view of Knoblock. The applicant respectfully traverses the rejection.

Claims 28-30 depend from claim 27. Claims 43-45 depend from claim 42. Claims 48-50 depend from claim 47. The applicant respectfully submits that the relied upon portions of Knoblock fail to cure the defects of Moldovan, Miller, and Loveland as set forth above with respect to 27, 42, and 47. Accordingly, the applicant respectfully submits that claims 28-30, 43-45, and 48-50 are in condition for allowance.

New Claims

New claims 58 and 59 recite features that correspond to those of amended claim 1. The applicant respectfully submits that claims 58 and 59 are allowable for at least the same reasons claim 1 is allowable.

Conclusion

For the foregoing reasons, the applicant respectfully asserts that all pending claims are in condition for allowance.

By responding in the foregoing remarks only to particular positions taken by the examiner, the applicant does not acquiesce with other positions that have not been explicitly addressed. In addition, the applicant's selecting some particular arguments for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist. Finally, the applicant's decision to amend or cancel any claim should not be understood as implying that the applicant agrees with any positions taken by the examiner with respect to that claim or other claims.

The three-month extension of time fee in the amount of \$1,110 and the excess claim fees in the amount of \$492 are being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other required charges or credits to Deposit Account No. 06-1050. Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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